

Barberton Booms!

An Area Assessment of the Barberton Business Triangle

Toward Economic Development in
The Barberton Community

Department of Community Development,
Long Range Planning Division
November 2004

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Background:

Job creation and retention are critical to the future of Clark County. In response to this need, the County Comprehensive Plan incorporated two efforts that provide a foundation for Economic Development. First, Focused Public Investment Planning (FPIP) was employed as a shift from conventional capital facilities planning to a new paradigm of cost efficient development, providing “shovel ready” nodes of job growth. Second, the County worked with the Columbia River Economic Development Council (CREDC) and other stakeholders adopting an Economic Development Action Plan.

The Action Plan calls out three broad strategies for the next five to ten years:

- Prepare identified nodes of growth for economic development
- Reduce regulatory barriers
- Increase the County’s capacity to support and participate in economic development.

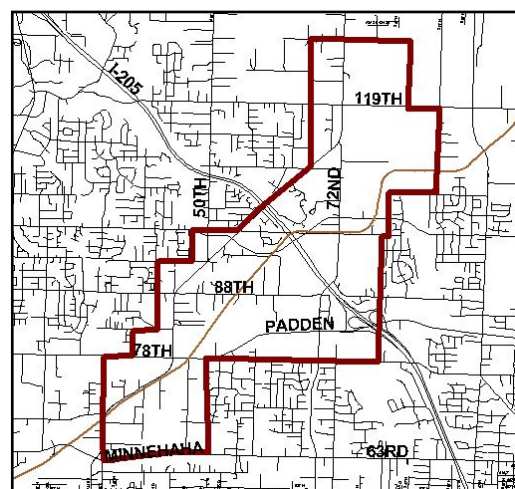
The Barberton initiative implements these three strategies, utilizing many of the specific action items identified in the Action Plan. This Area Assessment is the culmination of the Step One tasks of the Barberton Scope of Work.

The Barberton Job Center:

Barberton is an area with enormous potential. It has access to major transportation facilities; infrastructure cost estimates are comparatively low; many public investments are already being planned and funded; private sector support is strong and growing; and the area has numerous, large vacant parcels. If properly planned and invested in, the area can provide as many as 14,000 new jobs. The Barberton Area was found to be an efficient place for public investment in job creation during the Focused Public Investment Planning phase of the Comprehensive Plan Update. See Appendix 3 for an introduction to Focused Public Investment Planning.

There is a map on page 23 depicting the study area from the Focused Public Investment Cost Report. Updated maps, used for current and future planning exercises, are attached as Appendices 1-2. Generally, this project will focus on a Barberton Business Triangle consisting of 72nd Avenue, St Johns Road and 78th Street.

Figure 1 Barberton Area



Structure:

This initiative is structured so that major decisions are made by the community and the most affected property owners, with the robust support of County staff and experts in the field of economic development. Each of these stakeholders and advisors will be brought together on an Economic Development Action Team. By coordinating the efforts of the private and public sector the resources of both can leverage increased job growth.

A Business Improvement District could function as a subset of the Action Team, and address deteriorated buildings, signage, empty lots and buildings, and other issues that are not easily managed with conventional planning tools.

Public input:

This initiative needs to begin with an organizing drive to activate property owners, nearby residents, and other stakeholders. Through these efforts, the available information about developable parcels will balloon. The community will also come together to express a vision of what Barberton can and should be. Through these continuing efforts, neighborhood leaders will emerge. Through a modicum of public investment and the cultivation of local leaders, it is foreseeable that after an ‘incubation’ period, County staff can turn its attention elsewhere, and that Barberton’s economic development will surge onward.

Current Conditions:

Land use:

Overview:

The Barberton Business Triangle is just outside the Vancouver city limits and is bounded by NE 63rd Street (Minnehaha) to the south, NE 32ndth Street to the west, NE 133rd Street to the north, and NE 87th Avenue to the east. The area is within the Vancouver Urban Growth Area and is rapidly urbanizing. There are pockets of land designated urban low- and medium-density residential; and many residential developments are found throughout the area. Much of the St John’s Road corridor is residential in nature and zoning.

Through the heart of this area runs a corridor of industrial and jobs land which is as great as any in the entire Portland Metropolitan area. Much of the area has been designated for future light industrial use. Through the comprehensive Plan Update of 2004, many parcels previously designated for light industrial growth were rezoned for business parks. This conversion provides a level of potential high wage job growth, and can be better integrated into existing communities. The conversion also reflects an understanding of the changing market away from manufacturing, toward knowledge based industries.

Additionally, the north end of the Barberton Business Triangle has a node of as-yet greatly underutilized commercial property. As part of the Comprehensive Plan Update, this was extended northward. The result is a commercial node at 72nd avenue and 119th Street, which is large enough, and superbly located to be the site of a character defining commercial crown for the area. Another commercial hub is forming at the confluence of the Padden Parkway, Interstate 205, and Andresen Road. Both of these areas are benefiting from the opportunities presented by significant public investments in infrastructure.

Located southwest of this area is the Bonneville Power Administration's Ross Complex, which is an active power distribution facility that coordinates the distribution of hydroelectric power to areas throughout the Pacific Northwest. Please refer to section of this report in industrial clusters for a partial list of area businesses.

Parcel inventory:

The following data is derived from an analysis of the study area with the use of the Assessor's Vacant Buildable Lands Model (VBLM). The methodology of the model are fully explained on the County's website, specifically at <http://gis.clark.wa.gov/applications/gishome/vacantlands/index.cfm>. For industrial lands, Primary, secondary, and tertiary classifications refer the readiness of the site. Consideration is given to infrastructure availability, parcel size, and environmental constraints. The key to faster job creation is to transform these properties into shovel-ready sites moving more of the property into the primary classification. Then the County, CREDC, and the Action Team need to promote the availability of lands and facilitate their development for the good of the community. It is possible that there will be more land available for job production after a thorough review of the zoning in the area.

<i>Figure 2 Industrial Parcels</i>	
Industrial Vacant Lands - Gross Acres	
	Acres
Industrial, Built	591.85
Industrial, State Assessed Land	2.51
Industrial, Vacant Tax Exempt	76.49
Primary (ready to build)	4.64
Secondary (needs minor improvement)	29.39
Tertiary (needs more extensive improvement)	526.78

<i>Figure 3 Commercial Parcels</i>	
Commercial Vacant Lands - Gross Acres	
	Acres
Commercial Built	61.10
Commercial Exempt	13.38
Commercial Vacant	40.19
Underutilized with Greater Than 50 Percent Critical Areas	4.71
Vacant w/ Critical GT 50 Percent	63.14

<i>Figure 4 Residentially Zoned Parcels</i>	
Residential Vacant Lands - Gross Acres	
	Acres
Residential Built	111.59
Residential Vacant	53.13
Roads and Easements	342.74
Underutilized	112.74
Underutilized with Greater Than 50 Percent Critical Areas	93.78
Vacant w/ Critical GT 50 Percent	44.42

<i>Figure 5 Parcel Size</i>	
Lot Size in Acres	Number of Parcels
Less Than 5	1,131
5 to 10	75
10.001 to 20	24
20.001 to 50	7
50+	1
Total	1,238

What is made clear by this inventory of properties is that there is a huge potential for job growth in this area. However, this growth will not occur without stimuli. The largest supply of land is tertiary industrial lands. It is the purpose of the Barberton Economic Development Initiative to transform these parcels into a shovel ready status.

Natural Features

In addition to the information provided hereafter, please refer to Appendix 3 for a map of the Barberton Area Environmental Concerns

Climate

Clark County has wet, mild winters and warm, dry summers. Precipitation ranges from a low of 41 inches annually in Vancouver to a high of 114 inches annually in the northeastern corner of the county. Approximately 80 to 85 percent of the precipitation occurs from October to May.

Temperatures in the county, as recorded at four reporting stations, average 37 degrees in January and 65 degrees in July. Temperatures may vary from one location to another, depending on the direction of the wind, type of vegetation, and topography. Generally, temperatures are higher in the urbanized areas than in the surrounding rural areas. This is often due to (1) increased human activities that occur within urban areas (2) less evaporation because there is less water retention in the developed areas, and (3) less heat loss at night in urban areas because of heat retention in buildings and paved areas.

Topography

The topography in the area is fairly uniform with elevations ranging from 190 feet primarily in the area adjacent to Curtin Creek to 280 feet in the southern portion. Figure 6, below, shows that very little of the area has a slope which would complicate development.

Figure 6 Slopes

SLOPES	ACRES	
		SLOPES
		1 = 0 TO 5 PERCENT
		2 = 5 TO 10 PERCENT
1	2023	3 = 10 TO 15 PERCENT
2	282	4 = 15 TO 25 PERCENT
3	48	5 = 25 TO 40 PERCENT
4	19	6 = 40 TO 100 PERCENT
5	4	7 = GREATER THAN 100 PERCENT

Soils

The predominant soil types in the study area are Hillsboro loam and Hillsboro silt loam, both of which have moderate permeability when there are gentle to moderate slopes. Hillsboro soils are medium-textured soils that developed in deposits of old Columbia River alluvium, and are among the most productive soils in the county. There are also some isolated pockets of McBee silt loam which can be problematic for septic tank filter fields. Much of the area is underlain by hydric soils, particularly the identified wetlands and the riparian areas of Curtin Creek.

Geological hazard areas

There are no identified geohazard areas within the study area. Steep slopes are not an issue.

Curtin Creek

Curtin Creek originates in the study area in a large wetland area east of Andresen Road that is bisected by the Padden Partway. The creek flows east out of the study area, turns north after it flows under I-205 and re-enters the study area just north of 104th Street. The creek eventually flows into Salmon Creek.

Wetlands

The study area, particularly north of 78th Street has a number of wetlands both identified as wetlands (from the National Wetlands Inventory) and as high quality wetlands. About 15 percent (368 acres) of the 2376-acre study area is identified wetlands. The presence of wetlands and hydric soils will make development of some parcels impossible and other parcels difficult.

Fish and wildlife

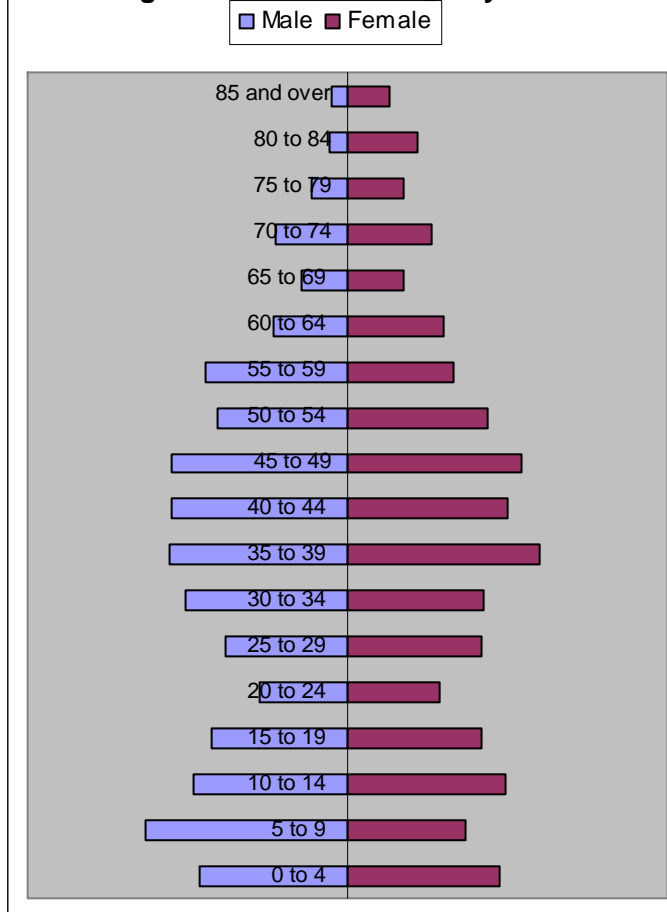
Curtin Creek is home to coho salmon, winter steelhead, summer steelhead, and sea-run cutthroat trout. In the lower reaches, fall chinook salmon are presumed to be present. The wetland bisected by the Padden Parkway is designated as a non-priority habitat and species area. There is a western gray squirrel occurrence (federal species of concern; state threatened list) in the vicinity of Andresen Road and I-205. Stands of White Oaks are also scattered throughout the area.

Demographic Profile

Population:

The Barberton study area is comprised of eight block groups within five census tracts. The population in the study area is 13,027 which represents 3.8% of the county total. The median age of the population is 36.2 which is slightly older than the county median of 34.2. The dependency ratio is used to indicate whether an imbalance in the number of working age population to the dependent population (those too young or too old to work) In the Barberton area 24% of the population is 15 or under and 12% of the population is 65 or over. The remaining 64% of the population is working age between 16 and 64. The ratio is consistent with the county overall, although the percentage of the population 65 and over in Barberton is greater than the county's as a whole.

Figure 7 Barberton Age Pyramid



Housing:

Figure 8 Housing Tenure				
	Barberton		Clark County	
	Number	Percent	Number	Percent
Occupied housing units	4,867	100.0%	127,208	100.0%
Owner Occupied	3,894	80.0%	85,550	67.3%
Renter Occupied	973	20.0%	41,658	32.7%

households in the study area which is significantly higher than the 6.8% in the county overall. The percentage of households in the study area that are owner occupied is 80% compared to the 67% countywide.

Married couple families make up 59.6% of the 4,915 households in the study area that is a slightly higher percentage than the county overall. Householder's 65 and over who are living alone make up approximately 20% of the

Education:

Educational attainment in the study area is slightly below the overall county. Eighty-five percent of the population in the study area have at least graduated from high school and 19% have at least a bachelor's degree.

Figure 9 Educational Attainment

	Barberton		Clark County	
	Number	Percent	Number	Percent
Less than 9th grade	322	3.7%	6,846	3.2%
9th to 12th grade, no degree	989	11.4%	19,732	9.1%
High School graduate (includes equivalency)	2,495	28.6%	58,574	27.0%
Some college, no degree	2,589	29.7%	66,024	30.4%
Associate degree	666	7.6%	18,120	8.3%
Bachelor's degree	1,173	13.5%	31,596	14.5%
Graduate or professional degree	475	5.5%	16,401	7.5%
High School graduate or higher	7,398	84.9%	190,715	87.8%
Bachelor's degree or higher	1,648	18.9%	47,997	22.1%

Source: Census 2000

Relative to the county overall, the employment of residents in the study area is higher than the County average in the following fields:

- construction industry
- finance
- insurance and real estate and professional
- scientific
- management and administrative
- waste management.

The median household income in the Barberton study area exceeds both the county and state median household incomes.

Figure 10 Household Income, in 1999

	Barberton		Clark County		Washington	
	Number	Percent	Number	Percent	Number	Percent
Households	4,914	100.0%	127,290	100.0%		
Less than \$10,000	338	6.9%	7,434	5.8%		
\$10,000 to \$14,999	251	5.1%	6,082	4.8%		
\$15,000 to \$24,999	476	9.7%	13,386	10.5%		
\$25,000 to \$34,999	461	9.4%	15,269	12.0%		
\$35,000 to \$49,999	1,063	21.6%	23,938	18.8%		
\$50,000 to \$74,999	1,152	23.4%	30,448	23.9%		

\$75,000 to \$99,999	730	14.9%	15,697	12.3%		
\$100,000 to \$149,999	329	6.7%	10,649	8.4%		
\$150,000 to \$199,999	74	1.5%	2,512	2.0%		
\$200,000 or more	40	0.8%	1,875	1.5%		
Median household income (dollars)	49,122	xx	48,376	xx	45,776	

Source: Census 2000

Transportation

Introduction

This report is not intended to describe all of the transportation requirements that ultimately may be placed on future development; many of those requirements dependent upon the nature of the proposed development.

Existing Conditions:

Public Transportation:

The Barberton area is primarily served by the St Johns route #25, which runs from the 7th St. Transit Center up Ft. Vancouver Way, along St. Johns to 88th St. then loops west to NE 15th, east on 99th St, south on NE 50th Ave then back on St. Johns/St James. There is also service along 78th Street from C-Tran bus # 78 to the Vancouver Mall via Andresen, and Vancouver Mall Drive.

As a result of proposition 1 not passing there will likely be service cuts to these routes. Please see the chart below.



Figure 11 Transit Service

Route	Path	Weekday times	Headway	Saturday Service	Sunday Service
#78	78 th Street	6 AM -8:30 PM	60min	7 AM - 7 PM	8 AM - 6 PM
Service Reductions		Completely Discontinued			
Timing of Reductions		Jan 2006			

#25	St Johns	6 AM - 9 PM	30 min	7AM - 7:30PM	9AM - 6PM
Service Reductions		6 AM – 8 PM	60 min	Discontinued	Discontinued
Timing of Reductions		Jan 2006	Jan 2006	Summer 2005	Summer 2005

Street System:

Figure 12 summarizes the existing condition of major street corridors within the study area.

Figure 12 Existing Conditions of Major Street Corridors in Study Area

Roadway	Arterial Designation	Features	Posted Speed	Concurrency Standard* MPH	Signals	Notes
78 th St. west of Padden Pkwy	Principal Arterial, Pr-4cb	4 Travel Lanes 2 Bike Lanes Sidewalks next to road Center Turn Lane	40	17	At St. Johns	
78 th St. east of Padden Pkwy	Minor Arterial M-2cb	2 Travel Lanes 2 Bike Lanes Partial Sidewalks Center Turn Lane	40	N/A	At Andresen	
Padden Parkway	Principal Parkway Arterial Pa-4cb	4 Travel Lanes Regional Trail Double LT lanes @ Andresen	50	17	At 78 th St., Andresen I-205 offramp	
88 th St.	Collector C-2cb	2 Travel Lanes No Bike Lane Partial Sidewalks w/ 1/2 streets	40	N/A	At Andresen St. Johns	
99 th St./ LaLonde	Minor Arterial M-4cb	4 Travel Lanes 2 Bike Lanes Sidewalks Center Turn Lane (CTL)	35	22	At 50 th Ave. St. Johns	Missing link St. Johns to 87 th Ave

Roadway	Arterial Designation	Features	Posted Speed	Concurrency Standard	Signals	Notes
119th St. East of 72 nd Ave West of 72 nd Ave	Minor Arterial M-4cb M-2cb	2 Lanes w/ left turn bays at 72 nd Ave	40	22 17	At 72 nd Ave	
Andresen	Principal Arterial Pr-4cb Pa-4cb S of Padden	4 Travel Lanes 2 Bike Lanes Sidewalks next to road Center Turn Lane in places	45	13	At 68 th St. 78 th St. Padden Pkwy 88 th St	Dedicated turn lanes at 78 th St.
I – 205	State	3 Travel lanes, NB & SB No Bike Lane No Sidewalks	60	N/A	None	
St John's Blvd.	Principal Arterial Pr-4cb	So. of 94 th St. 4 Travel Lanes 2 Bike Lanes Sidewalk next to road – varies 94 th St /50 th Ave to LaLonde 2 Travel Lanes w/ CTL No Bike Lane or Sidewalks LaLonde Dr to 119 th St 2 Travel Lanes No Bike Lane or Sidewalks	40	22	At 63 rd St. 78 th St. 88 th St LaLonde Dr 119 th St	Dedicated turn lanes at 78 th St.

72 nd Ave	Principal Arterial Pr-4cb	88 th St to St Johns 2 Travel Lanes No Bike Lane or Sidewalks St Johns to 119 th St 4 Travel Lanes 2 Bike Lanes Sidewalk next to road	45	27	At 119 th St	
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* These standards are used by the County to ensure that transportation system improvements are “concurrent” with new development. This is a device by which adequate traffic flow is maintained both for the sake of general mobility and to minimize congestions levels that may impede economic development and the movement of freight.

Pedestrian and Bike System:

A multi-use trail facility runs parallel to the Padden Parkway, including a dedicated pedestrian / bicycle bridge crossing over i-205. There are no other significant off-street pedestrian or bicyclist facilities in the study area. Arterial roadway segments that have been built to the standard typically include sidewalks and bike lanes. In general, routes for pedestrians and bicyclists are fragmented and discontinuous, due to the fact that there are large undeveloped industrial areas and much of the residential areas were developed at a time when sidewalks were not a requirement.

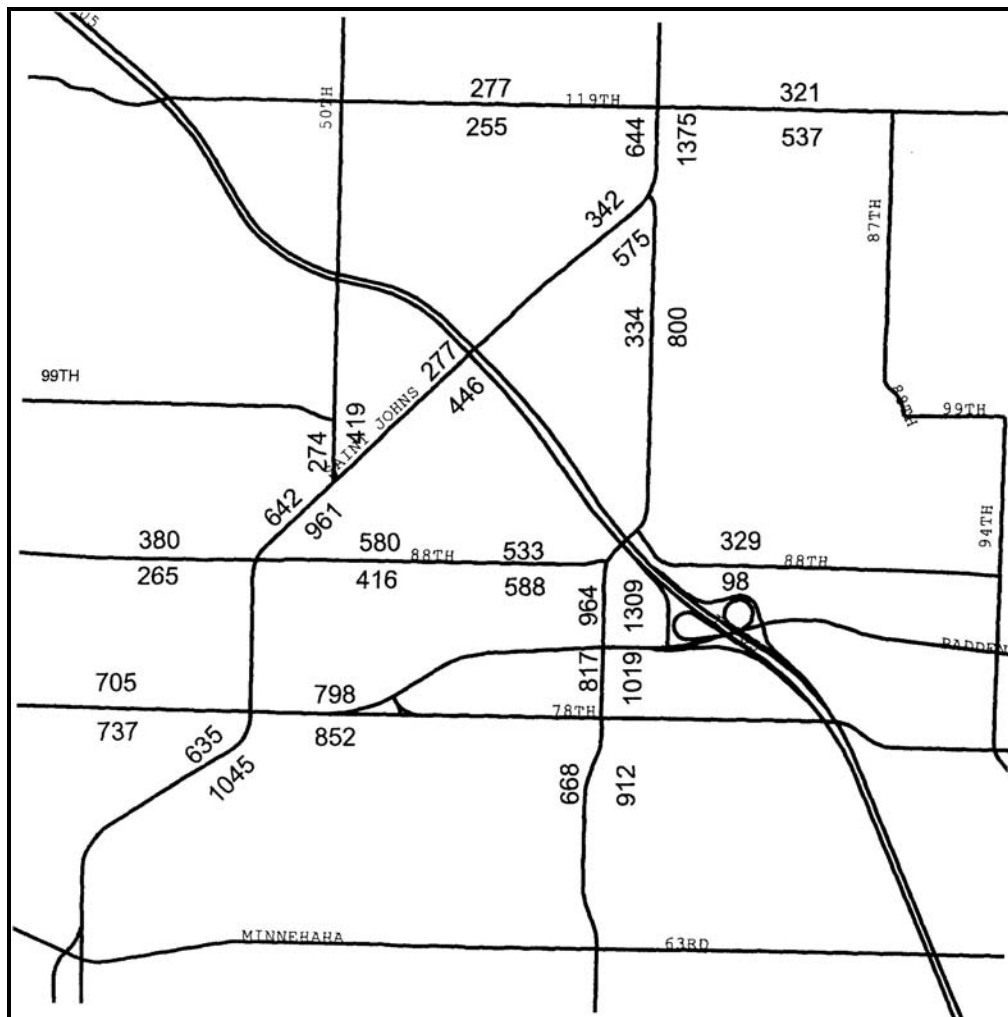


The cycling Clark County guide maps the level of service for recommended routes. NE 72nd Avenue from just north of 88th Street to 99th Street is identified as having a failed level of service. Widening of this road segment including bike lanes is identified as a funded project in the current transportation improvement program.

Traffic Volumes:

The most recent traffic volumes in each direction during the PM peak hour are shown in the attached map (Figure 13). As might be expected the highest volumes are found at the intersection of the Padden Parkway and Andresen. Northbound volumes on St. Johns are also high south of 99th Street and between 72nd Ave and 119th Street. The Barberton area has volumes and better traffic conditions than elsewhere in the metropolitan area. Additionally, the planned transportation improvements to St John's Road, 72nd Avenue, and 88th Street will provide an abundance of system capacity. This capacity, with the added bonus of interstate access, will keep transportation deficiencies from being a hindrance to future development.

Figure 13 Traffic Volumes

Concurrency Corridor Conditions:

The major corridors in the study area operate at well above the established concurrency speed standards with one exception. NE 99th Street is currently operating at 25 mph and has a speed standard of 22 mph. It should be noted that only a small section of this corridor is within the study area and that PM peak trips from new employment within Barberton would generate more westbound traffic which is not the dominant movement. Corridor speed data is summarized below in figure 14. Once again, this means that transportation deficiencies will not be a hindrance to future development.

Figure 14 Concurrency Corridor Analysis Summary Sheet			
Corridor	Operating Speed	Speed Standard	Comments
Andresen / 72nd Ave	22	13	
St. Johns Road	32	22	
NE 63rd Street (WC)	29	22	
NW 78th Street (WC)	30	17	
NE 99th Street (WC)	25	22	Within 3 mph of standard
NE 119th Street (WC)	30	17	

Intersection Conditions:

In addition to the operating conditions of the existing transportation system concurrency corridors, intersections along the corridors study area roadways were examined for potential localized constraints to site development not revealed at a corridor level. A simple and readily available source of data is the average delay in seconds at each intersection as determined in the concurrency modeling program. While there is no set standard of intersection delay that represents a failing level of service using this data, it is useful for comparative purposes. A comparison of Traffic Control delay data in these corridors indicates that the highest values are found at the following intersections. While these intersections are not currently facing failing levels of service, these may be the ones to watch in the final stages of Barberton's full build-out.

- Andresen & 88th St
- ANDRESEN & NE 78TH
- ANDRESEN & PADDEN PARKWAY
- ST. JOHNS RD & 78TH ST

The planning methodology does not account for improvements in capacity provided by finely-tuned signal phasing and should only be considered as a potential constraint to any development of this site that would substantially increase the demand on these intersections.

Traffic Incidents:

Public Works maintains records of traffic incidents (or accidents). Staff in Public Works interprets these records to determine if a pattern of incidents exists and whether that pattern indicates a safety concern that can be addressed through physical improvements to the roadway. This information is tabulated based on defined sections of roadways between major intersections. The rate of incident occurrence is calculated to determine the importance of the pattern. Based on this information, it would appear that additional investigation may be needed for: During the design phases of the projects for these corridors, these matters are considered and dealt with. Design work has already been completed which will address these problems.

- NE 50th Avenue between St. Johns and NE 99th Street
- NE 78th Street between St. Johns and NE 58th Avenue
- St. Johns Rd between NE 50th Ave and NE 72nd Ave.

Planned and Committed Transportation Improvements:

Figure 15 <i>Planned and or funded transportation Improvements in the area</i>		
Project	Cost in millions	Notes
Padden West Leg	\$13	Construction began 2001
Padden I-205 to NE 94 th Ave.	\$6	Construction began 2002
St. John's Rd. NE 50 th Ave. to NE 72 nd Ave.	\$10.2	Widening is currently in design (5 lanes)
NE 72 nd Ave 119 th St to North of NE 88 th St.	\$8.4	Widening is currently in design (5 lanes)

NE 88 th St Hwy 99 to Andresen	\$24	In Transportation Improvement Program (TIP) to 3 lanes
NE 99 th St St Johns to SR-503		In TIP to 3 lanes
NE 55 th / 58 th Ave From 78 th St to 88 th St	\$3.6	New 3 lane Road in Capital Facilities Plan (CFP)
NE 72 nd Ave Widening north of 119 th St	\$11.8	In CFP north to 133 th St. (improved to 5 lanes)
NE 119 th St East of 72 nd Ave.	\$16	In CFP to 3 lanes
Padden Parkway and NE Andresen Road Interchange	\$15	In CFP
I-205 / Padden Parkway Central County Transit Center	\$11	In Metropolitan Transportation Plan (MTP)
I-5 improvements north of 99 th Street and at 134 th interchange (included in state nickel package of funded projects)	\$74	In MTP, providing significant regional mobility improvement.
I-205 improvements from SR-14 northward with interchanges at Mill Plain Blvd. and Burton St. in state "Nickel" package of funded projects.	\$168 \$120 in nickel	In MTP, providing significant regional mobility improvement.
I-205 improvements from SR-500 to 134 th St. with interchange work at SR500	\$95	In MTP, providing significant regional mobility improvement.
Scheuler Stormwater Facility East of 72 Ave, north of 99 th St.	\$.3	Clean Water Program 2004-2005, Flood Storage, Habitat and Water Quality Improvement

The Lewis and Clark Railroad

The Lewis and Clark Railroad is a 33-mile short line railroad, owned by Clark County and is also known as the Chelatchie Prairie Railroad or the Clark County Railroad.

The operating and maintenance responsibilities for the line are leased out under operating contracts to two different railroad operators. On the line segment from Battle Ground to the south (south line), the Columbia Basin Railroad Company (CBRR) is responsible for freight operations. The CBRR is affiliated with the Spirit of Washington Dinner Train group and is operating under an interim lease arrangement, while a dinner train partnership with the County is being negotiated. At present, this line segment serves the only active freight shippers on the railroad.

On the line north of Battle Ground (north line), a volunteer group known as the Battle Ground, Yacolt, and Chelatchie Prairie Railroad Association (BYCX) is operating a passenger excursion program originating in Yacolt.



Existing track conditions on both the north line and the south line are variable and range from FRA excepted track condition to FRA Class 1 condition. Due to these track conditions, train speeds are limited for both freight and passenger operations. Currently, the line is underutilized, with only marginal freight operations and limited passenger excursion operations. As a result, key track maintenance projects are being deferred and both the passenger and freight potential of the line is not being realized.

Two previous consulting studies have indicated that the line has considerable growth potential when

supported by track upgrade programs, economic development efforts, and a promotional and entrepreneurial freight operator.

In late 1996 and early 1997, Main Line Management Services (Mt. Laurel, New Jersey) evaluated the line and prepared a “viability” report assessing the potential of the railroad. The Recommendations and Conclusions Section of the report stated “We conclude that the freight operation south of Battle Ground can become self-sustaining, excluding the cost of capital, but that a significant effort on several fronts will be required to achieve that status”. More recently, the County contracted with a different consulting firm, Mainline Management, Inc. (Tacoma, Washington), to update the viability assessment. The conclusions were consistent between the two studies. The more recent report indicated that the railroad is at a “crossroads” and that in order for the line to remain a viable option, the County would have to undertake a number of strategic initiatives, including an upgrade of the track conditions.

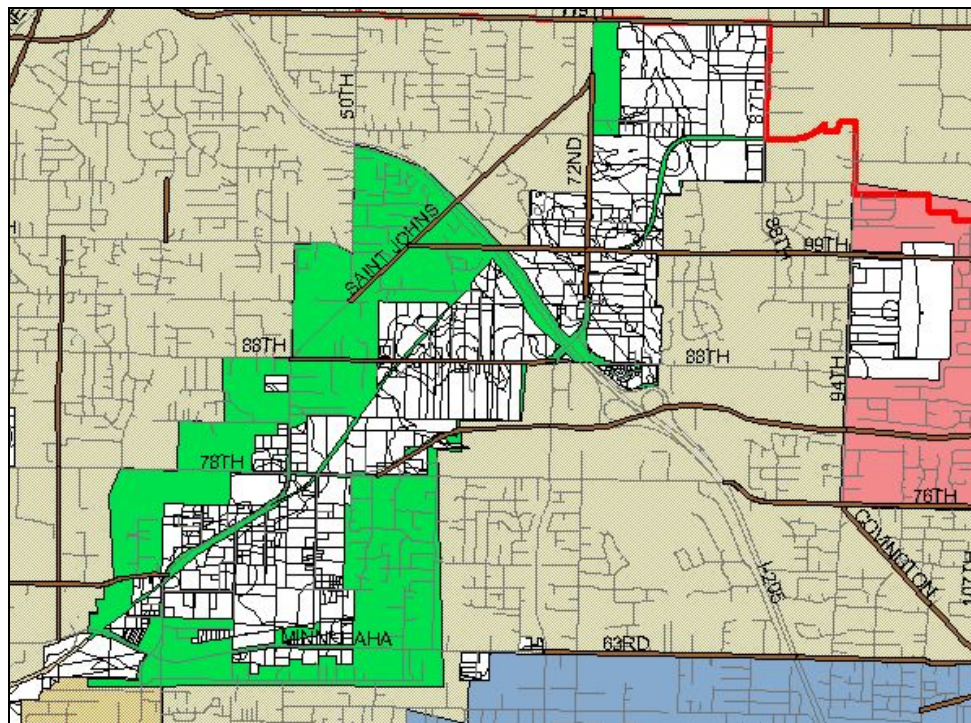
With the upgrading of the track and the growth in the shipper base on the line, multiple benefits could be achieved. The benefits including reducing truck traffic on both urban and rural roadways, increasing industrial and/or commercial employment in the County, minimizing shippers costs and the environmental impacts of truck hauling, reducing the unit operating costs of the County’s railroad, and retaining a historic resource of the community.

In addition, the upgrading of the track to an FRA Class 2 condition could facilitate the dinner train partnership that is currently being discussed with the Spirit of Washington group. This partnership would also result in the Columbia Basin Railroad (CBRR) becoming the County's long-term freight operator, thus allowing the County to capitalize on the shipper development and marketing expertise of the CBRR.

Utilities and Public Services

Much of the following data was developed as part of the Focused Public Investment Planning effort in 2003. The geographic boundaries of the St John's FPIA (see figure 16) are slightly different than the boundaries of the Barberton Economic Development project. However, the same issues are germane.

Figure 16 St John's Focused Public Investment Area.



that will serve the newly rezoned commercial areas north of 119th Street. This initiative needs to be maximized for the benefit of the entire area. Sewer service must also be extended down 72nd Avenue.

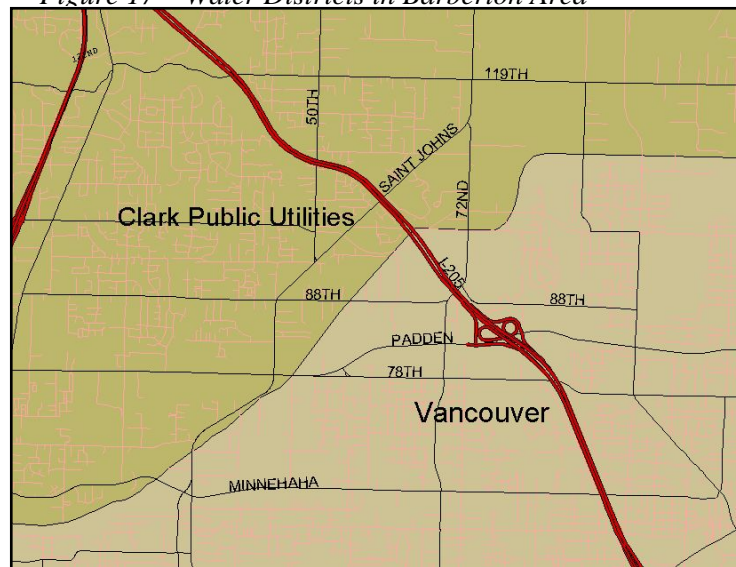
Water:

Water service is provided by both the City of Vancouver and Clark Public Utilities. Please see figure 17.

Fire protection and emergency services:

Although this area is within Fire District 5 boundaries, fire protection and BLS emergency medical services are provided by the City of Vancouver Fire Department under a contract agreement with Fire District 5. Analysis of emergency response time to the potential investment area shows that an average response time of 5 minutes or less is provided to more than 97 percent of this geographic area. No public investment is required for fire protection and emergency medical services.

Figure 17 – Water Districts in Barberton Area



Stormwater and Environmental Issues:

For most of this investment area, soils do not drain well and the infiltration potential is low, making stormwater management more expensive. Infiltration may be possible in a limited area in the southern portion. The depth to groundwater varies, but generally it is very shallow, which also makes the construction of buildings and infrastructure more expensive.

Streams and watersheds that could be impacted by new development include Curtin and Lalonde Creeks, which are in poor condition and are a part of the Salmon Creek watershed, and Cold Creek, which is in fair condition for the portion that is not piped and is part of the Burnt Bridge Creek watershed. Wetland areas and wetland mitigation sites are also found within this investment area. Some are high-value wetlands and mitigation costs would be high. This is one of the challenges which will be addressed by this project.

Electricity:

Multiple variables make it difficult to estimate the cost of extending electrical service to accommodate commercial and industrial development within this area. There is a significant lack of substation capacity to serve predicted industrial growth and as many as three substations may be necessary to accommodate the additional load. Multiple options are available, and costs depend on the location and load density of new development.

Targeted Industrial Clusters

Introduction:

The emphasis on economic development in the Barberton area is premised on creating a better business environment, developing conditions for private sector-led economic growth, and employment generation. In order to provide the County with jobs and economic growth, the County Comprehensive Plan included Focused Public Investment Planning (FPIP), integrated efforts with the Columbia River Economic Development Council, and involved other interested parties to develop an Economic Development Action Plan, which calls for the identification of economic development nodes, the reduction of regulatory barriers, and the County's increasing involvement in economic development.

Barberton was chosen for its significant economic potential. The Barberton area has access to major transportation routes with relatively low infrastructure costs. It has public investments already in motion, private sector support is strong in the area, and it has numerous large vacant parcels of land. All of these assets, if properly planned, could create as many as 14,000 new jobs in the area.

Network of Supplier and Business Relationships:

In the context of this report, “network of suppliers” and “business relationship” refer to the geographic concentration of an array of linked, competitive firms that have (1) close buy-sell relationships; (2) utilize common technologies; or (3) share customers. For example, welding, metal, and fabrication firms in the area benefit from BOC gases and other supply chains that are located nearby or within the region. In the Barberton area, small to medium industry clusters are developing in a manner that would make the small businesses in the area more competitive. It would be appropriate to link neighborhood-based companies to the regional and global economy.

Growth of Existing Businesses:

Most of the area is gradually developing into high-tech and low-tech industry clusters that will shape and drive economic development in the future. Infrastructure development would provide added value to the viability of the area. The real estate professionals that site

Costco's and Home Depots do very thorough research. That research brought both of them to this area. Both properties serve as major Commercial anchors. Anecdotally, if the area has attracted a Krispy Kreme Doughnuts, the future looks bright. There is also a major shopping center proposal at NE 72nd avenue and 119th Streets. In addition to commercial growth, four of top 25 Business Parks in Clark County are in the immediate area.

Figure 18 Business Parks within the Barberton Business Triangle

Site	Square Footage/ % Occupied	Year built or renovated
North Park Industrial Center	192,000 / 89%	2000
Opus/ 205 Distribution Center	128,000 / nd	2002
National Industrial Park	100,000 / 100%	1990
Central Industrial Park	95,000 / 100%	1996

The following businesses are located in the above business parks:

- Sunlight Supply Inc.,
- Stein Distributing Inc.,
- Cascade Dispensing Systems
- Keller Supply Company
- Amfit
- N Light Photonics
- Panther
- Insulation Supply Inc.,
- Eoff, MCI, Service Partners
- The Greased Line Fly Shoppe
- Prairie Electric
- Suburban Door Company Inc.,
- Columbia River Bakery,
- Rapco Industries Inc.
- Round Table Pizza.



Other established businesses in the area include:

- United Pipes Supply
- State Pipe and Supply Company (pictured here)
- Van-Port Rigging
- Interstate Trucking
- Kiewit Pacific Company
- and Creager Excavating Inc.



The growth of existing businesses, as well as potential for new start-ups, will depend on local venture capital. The skilled labor is available in Clark County (there have been recent layoffs of high-level engineers) and the opportunity for start-up firms could be great.

Emerging and Existing Clusters:

A possible list of future industries includes the following:

- Semiconductors
- Research and development with dynamic entrepreneurs (Sharp Labs, United Labs)
- Primary metals
- Telecommunications
- Distribution and warehousing.

In order to market new initiatives and attract business, the County should work to arrange the financing of transportation and utility infrastructure investments. Utility investments would focus on existing sewer lines where some expansion is needed. In order to streamline the permitting process, Clark County has instituted case management and express permitting. Both mechanisms will be employed for key developments in this area.

Pre-planning refers to pre-packaged development deals that incorporate anticipated permit requirements, pre-zoned or consolidated property, and the removal of barriers. With pre-planned projects, companies can move into the area within a relatively short amount of time. This greatly enhances Clark County's attractiveness to the business community. This need for speed is especially true for "hi-tech" industries that develop products of limited market duration (e.g., products such as semiconductors that may become obsolete in less than two years). Given this need for speed, planning becomes the key component to Clark County's economic development plan.

It is particularly important to Clark County's economy that WSUV transition into a four-year university, enabling a ready-to-work educated workforce that can transition straight into new industrial, commercial, and technical fields. Clark College will likewise need to continue its

focusing on future job training. This will enable Clark County to have a ready-to-work skilled workforce that can transition into newly developed business.

Issues:

The visions for Clark County's economy is to move toward innovative cost-efficient development in "shovel ready" nodes of industrial expansion. This vision becomes more achievable when the County organizes the Barberton community and other-stakeholders, along with the area's present and future businesses into a consolidated ED Action Team. This consolidation of economic development energy recognizes that goals can be best met through public and private partnerships. Additionally, it will be important to recognize that the County's economic development efforts will be enhanced through the marketing of commercial and industrial properties.

Next Steps:

Step 2.

Organize the Barberton community and solidify an advisory body

- a) Conduct stakeholder interviews.
- b) Organize a meeting of property and business owners in the area.
- c) Assess strengths, challenges, and opportunities (with public and key providers).
- d) Consider doing a preliminary market analysis.
- e) Establish appropriate advisory body for the area.

-Report on results

Timeline: 7 months.

Step 3.

Agree upon a plan of action

- a) Analyze options for facing challenges and seizing opportunities. (Including infrastructure, regulation, market factors, and structures (LID's, PBIA's etc.)).
- b) Provide analysis to decision makers.
- c) Establish timelines and assignments to effect change.
- d) Review land use pattern and transportation circulation.
- e) Decide upon preferred land use pattern and a circulation plan.
- f) Develop guidelines or overlay for study area.

-Report on results

Timeline: 7 months

PHASE TWO

During this phase, efforts for individual development applications will run concurrent with the progressing plan implementation.

Step 4.

Plan Implementation

- a) Pursue Items identified from Step3, c). {This will result in the issuance of a revised scope of work}.
- b) Adopt new land use map and circulation plan.
- c) Begin actual construction and development activities including:
- d) Demolition
- e) Laying water and sewer lines

- f) Installing gas, electric, water, and telephone lines.
 - g) Property management
- Report on results

Timeline: Depends on number of items in Step 4. a).

Step 5.

Continuing services

Facilitate individual development proposals

(This work will run concurrently with other Steps of Phase Two.)

- a) Provide continuing education to advisory group and property owners
(topics including marketing, small business management, financing opportunities)
 - b) Facilitation and “fast tracking” of the development applications.
 - c) Marketing specific sites to investors and relocating companies.
- Report on results

Timeline: Continuing effort.

Appendices

- 1. Map of Zoning**
- 2. Map of Environmental Concerns**
- 3. Focused Public Investment Planning**
- 4. Transportation Code Requirements for Development**

Appendix 4

Focused Public Investment Planning

The following is excerpted and modified from the original report.

Introduction

Since the start of the Comprehensive Plan update, county leaders have made a commitment to focus on economic development and balancing jobs and housing in the county. Their vision is one of the county as a regional economic powerhouse in its own right, providing a better balance of employment to housing for residents. County leadership is committed to encouraging economic development, and particularly the creation of family-wage jobs.

It is clear that existing revenue streams may not be sufficient to keep up with demands for public services and facilities. Transportation concurrency policy has led to the delay of projects in some corridors; park acquisition and improvements are not keeping up with population and employment growth; and schools heavily rely on portable facilities.

In the past, Clark County has dispersed its capital improvement expenditures throughout the county, providing partial solutions in many areas, but not complete solutions within priority areas.

Given the limited resources available for infrastructure, the County wants a more strategic approach to the investment of public funds to achieve its goals. The county is considering focusing capital improvements for a variety of services in specific areas, rather than implementing capital improvements more broadly, to provide “fully served” land where all public facilities meet or exceed standards. Experience in other communities shows that the market responds well to “shovel-ready” sites at which development can begin as soon as plans and approvals are completed.

As a part of the update of Clark County’s 20-Year Comprehensive Growth Management Plan, the county identified potential investment areas and developed conceptual plans and cost estimates for making these areas ready to build. Full build-out of all the areas will take many years, and elected officials will determine the timing for improvements.

The full report explains the process used to identify potential investment areas, estimates the cost of public infrastructure investment to support development, and determines the potential benefits in terms of the number of acres and jobs that could be accommodated. With total estimated public infrastructure costs and capacity for jobs by acre, a “cost-per-job” can be calculated for each FPIA, thereby revealing the relative efficiency of each dollar of public investment. The information will be used to set priorities for investment among the areas and to design a land use plan with urban growth areas that support employment development.

Focused Public Investment Area Profiles

The results of the analysis of the FPIAs are presented in individual sections in alphabetical order. Maps of each FPIA are included in an appendix at the end of the document. Each FPIA section contains:

- a general description of the area's characteristics,
- a table showing job capacity based on the amount of vacant commercial, industrial and "other" (generally residential) land and the amount of redevelopable land within an FPIA,
- a discussion of the infrastructure investments needed for sewer, water, stormwater and environmental mitigation, transportation improvements, fire protection and emergency services, and electrical service to fully serve the FPIA, and
- a summary of costs section with a table showing the estimated total costs for improvements.

The job capacity table distinguishes the potential job capacity from vacant "other" land and redevelopable land. The distinction is important because both types of land could take longer to develop compared to land that is vacant and already zoned for industrial and commercial uses.

The resulting costs per job in the FPIA are presented, based on development of: 1) vacant commercial and industrial land, 2) vacant commercial and industrial plus redevelopable land, and 3) all vacant and redevelopable land (i.e., includes "other" uses (e.g., residential) that could be designated for commercial and industrial uses). A summary table of cost-per-job is presented at the end of the Results section, below.

Parcelization:

Homogeneous and small-lot parcelization. Homogeneous lot sizes may affect the ability of an investment area to attract targeted industries or jobs at the intensities predicted. Major employers want not only land for their own facilities, but also assurance that their suppliers can locate nearby or have convenient access to their facilities. Larger parcels that allow for businesses to expand without moving also tend to be more attractive, so that a high proportion of small parcels may impede development of FPIAs by larger businesses unless lots are consolidated.

Costs per Job

The FPIA analysis aims to provide decision-makers with information about the relative efficiency of public investments in specific locations. In this case, efficiency is evaluated by looking at how much public investment it would take to create jobs in an FPIA. The cost of providing infrastructure improvements to make each FPIA "shovel-ready" is divided by the potential job capacity (based on the amount of vacant and redevelopable land) to arrive at a "cost-per-job" that can then be compared across FPIAs.

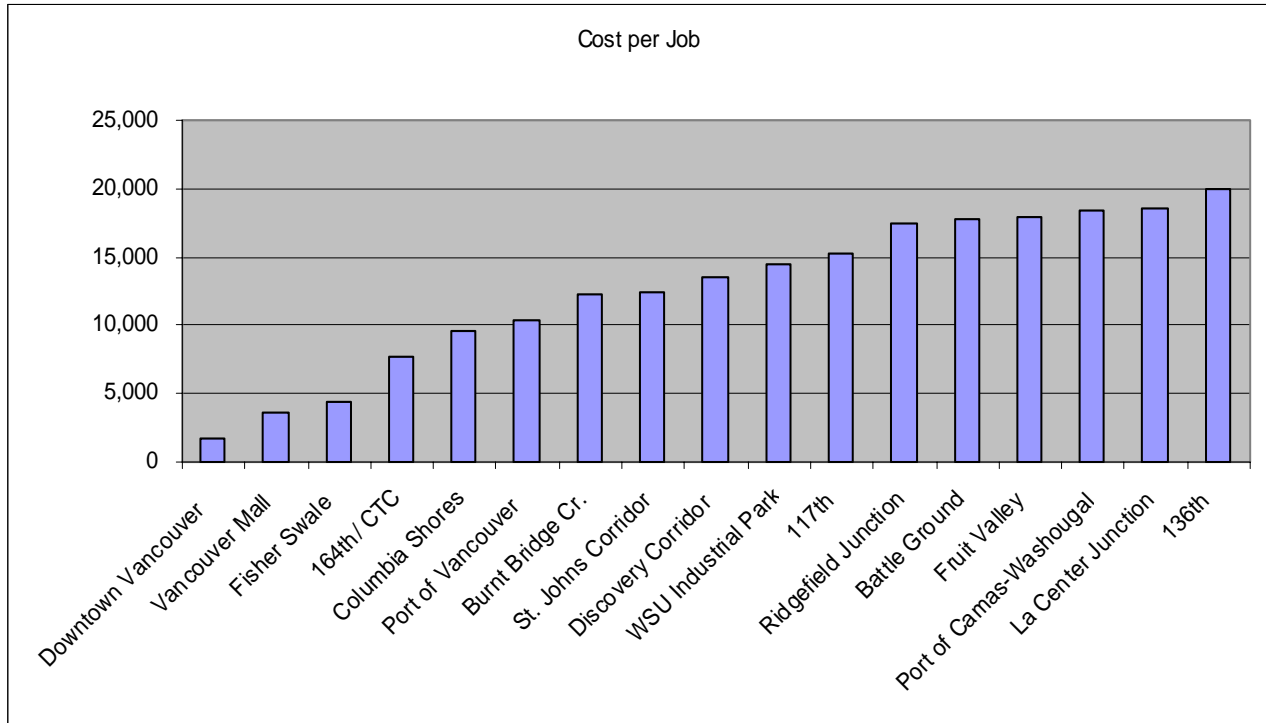
The job capacity calculation distinguishes between the potential job capacity on vacant commercial and industrial land, vacant "other" (residential) land, and redevelopable land.

The distinction is important because vacant “other” and redevelopable land is expected to take longer to develop compared to land that is vacant and already zoned for industrial and commercial uses. For example, the County would need to rezone residential land to commercial or industrial zones, which is an added step in the development process and carries with it additional costs. Redevelopable or underutilized land contains a current activity or development that would need to be changed before new development could occur. Thus, timing becomes a factor in determining the efficiency of public investment as well.

The costs per job in the FPIAs are broken out by: 1) vacant commercial and industrial land, 2) vacant commercial and industrial plus redevelopable land, and 3) all vacant and redevelopable land that could be designated for commercial and industrial uses. A comparison of the costs per job for all FPIAs is presented in Table 2.

Table 2: Summary of Costs per Job

FPIA	Costs per Job		
	Vacant Industrial + Commercial	Vacant Industrial + Commercial + Redevelopable	Vacant Industrial + Commercial, + Redevelopable + Vacant "Other"
117th	\$ 46,907	\$ 17,211	\$ 15,233
136th	\$ 26,183	\$ 23,045	\$ 20,047
164th/Columbia Tech Center	\$ 32,916	\$ 8,894	\$ 7,718
Battle Ground	\$ 31,045	\$ 23,733	\$ 17,807
Burnt Bridge Creek	\$ 17,843	\$ 12,707	\$ 12,196
Columbia Shores	\$ 32,652	\$ 10,379	\$ 9,527
Discovery Corridor	\$ 330,338	\$ 19,530	\$ 13,526
Downtown Vancouver	\$ 7,350	\$ 1,672	\$ 1,672
Fisher Swale	\$ 4,584	\$ 4,584	\$ 4,372
Fruit Valley	\$ 17,961	\$ 17,961	\$ 17,961
La Center Junction	\$ 42,987	\$ 34,516	\$ 18,604
Port of Camas-Washougal	\$ 25,555	\$ 21,213	\$ 18,344
Port of Vancouver	\$ 10,401	\$ 10,401	\$ 10,401
Ridgefield Junction	\$ 63,900	\$ 21,823	\$ 17,421
Barberton (being similar, though not the same as the current study area)	\$ 31,113	\$ 14,937	\$ 12,450
Vancouver Mall	\$ 11,156	\$ 7,903	\$ 3,568
WSU Industrial/Research Park	no vacant ind/comm	\$ 28,138	\$ 14,435



Barberton (St Johns Corridor)

Potential Job Capacity

Table 31: Potential Job Capacity in St. Johns Corridor FPIA

(the study area has now expanded, as well as the potential for new jobs)

Vacant Land	Parcels	Acres	Jobs/Acre	Total Jobs
Commercial	20	29.012	12	348
Industrial	108	430.185	9	3,872
Other	48	195.12	9	1,756
Total from Vacant Land	176	654.317		5,976
Redevelopable land	222	507.73	9	4,570
Total Capacity	398	1,162.05		10,545

Source: DEA calculations from Clark County Department of Assessment & GIS data, as amended by field observations, 2002.

Approximately 43 percent of the job capacity in this potential investment area would come from redevelopment of currently underutilized parcels (mostly single-family homes on 5- or 10-acre lots). Another 17 percent of job capacity is estimated for vacant land requiring rezoning to commercial or industrial uses.

Summary Of Costs

Table 32 summarizes the cost of bringing vacant and underutilized land in this area up to the level that CREDC believes necessary to enable the County to compete for prime industries. If only the potential job capacity of vacant industrial and commercial land is considered, this would be \$31,113 per job. However, there is some potential for redevelopment of underutilized land in the area, and if this is included, the cost per job drops to \$14,937. If all vacant and redevelopable land were designated for industrial and commercial uses, the cost per job would be reduced further to \$12,450.

Table 32: Summary of Infrastructure Costs for the St. Johns Corridor FPIA
(the study area has been changes since this analysis)

Infrastructure	Estimated Cost
Sewer	\$10,584,416
Water	\$3,575,804
Transportation	\$61,200,000
Fire and EMS	\$0
Stormwater/Environmental mitigation	\$49,130,501
Electrical	\$6,800,000
Total	\$131,290,721

Appendix 5

Code Requirements For Development

There are transportation improvement requirements that will be placed on that application based on the existing county development code (Title 40). This section examines and identifies those requirements.

CIRCULATION

CCC 40.350.030 B 2 c Review Criteria for an Urban Circulation Plan.

(1) Cross-circulation. Cross-circulation shall be provided in a manner, where possible, that will allow subsequent developments to meet these standards.

(a) Block Length. Block lengths shall be between one hundred (100) to eight hundred (800) feet; provided, that where a block is partially defined by an arterial or industrial road the block lengths along the arterial shall be no less than the minimum full access intersection spacing specified in Table 40.350.030-2 through Table 40.350.030-6.

(b) Block Perimeter. The block perimeter shall not exceed three thousand two hundred (3,200) feet unless accessway(s) for pedestrian or bicycle circulation are provided or where topographic or other physical constraints preclude achieving this standard.

(2) Access Street System. The access street system shall:

- (a) Provide convenient parcel access to and from adjacent arterials and/or collectors;
- (b) Be designed to discourage external traffic from short-cutting;
- (c) Be designed to discourage vehicular speeds in excess of legal speed limits;
- (d) Be designed for convenient circulation of internal traffic without reliance on the arterial systems;
- (e) Support direct travel by pedestrians, bicyclists, and transit users, and;
- (f) Discourage unnecessary streets and hard surfaces.

ACCESS

40.350.030 B 4 d Access to Arterials In order to limit the number of residential roads intersecting with arterials while providing adequate neighborhood circulation, residential roads intersecting with arterials shall be classified and constructed to standards applicable to local residential access or collector road unless the review authority finds that a lesser classification adequately provides for the circulation needs of the surrounding area.

(1) Driveways. No driveways will be permitted to access onto arterials unless no other access to the site exists or can be provided.

(a) Spacing. When driveways on arterials are permitted, they shall be spaced in accordance with Table 40.350.030-7.

(b) Number of Driveways. Where permitted, the number of driveways and driveway lanes on arterials shall be based upon an estimate of site traffic generation in accordance with Table 40.350.030-9.

(i) Multiple driveways are not permitted until the estimated ADT exceeds the number shown in the second column for the different type of land use. Then, an additional driveway is allowed each time the estimated ADT increases above the previous maximum ADT for each driveway as shown in the columns for minor arterials and principal arterials; provided, the additional driveways meet the spacing requirements specified in Table 40.350.030-7. As an example, a commercial land use on a minor arterial has one driveway up to two thousand (2,000) ADT, then two driveways for two thousand one (2,001) to five thousand five hundred (5,500) ADT, three driveways for five thousand five hundred one (5,501) to nine thousand (9,000) ADT and so on.

(ii) A permit for exclusive use of a truck driveway in addition to the non-truck traffic may be granted for commercial uses that exceed thirty thousand (30,000) square feet of gross floor space.

(iii) Two driveway exit lanes are allowed when the ADT exceeds one thousand (1,000).

(c) Width. A single-family residential driveway onto an urban arterial shall be fifteen (15) to thirty-five (35) feet in width; provided that a joint use driveway serving two (2) residential lots shall not exceed thirty-six (36) feet in width. A commercial and multifamily two- (2) way driveway onto an arterial shall be twenty-four (24) to forty (40) feet in width;

(d) Corner Clearance. To provide adequate corner clearance, the tangent curb length between the nearest edge of a driveway on an intersecting side street and an arterial roadway, or a driveway on an arterial roadway and an intersection with a cross street shall be fifty (50) feet. Where the intersection is signalized or is planned for signalization, driveways shall be limited to right-turn movements if located within two hundred fifty (250) feet on minor and principal arterials.

(e) Additional Improvements. The installation of other improvements such as left-turn lanes, right-turn lanes and traffic signals may be required by the County Engineer where found necessary on the basis of a traffic engineering study.

(f) Temporary Driveway. A temporary driveway may be allowed when, due to temporary conditions beyond the control of the applicant, minimum driveway separation cannot be achieved at the time of application. The review authority may approve a temporary driveway when an access plan shows future removal of the temporary driveway and a new driveway which meets the spacing standards shown above is assured to be constructed.

(2) Medians and Channelization Policy. In order to preserve capacity and promote safety, arterials shall include raised medians to restrict cross traffic movements. In general, full-access intersections, signalized and non-signalized, on arterials will be permitted only with other county, state and city roads as are designated on the Arterial Atlas, as amended. Circulation from such intersections in most cases will satisfy the access needs of adjacent land. However, in the event an applicant requests a median opening along an arterial or left-turn channelization access (in cases where the arterial is not designed with a median) which does not conflict with proper intersection spacing, such request shall be accompanied by a traffic study performed under the requirements of Section 40.350.020. The proposed median opening or left-turn channelization may be approved only if the study shows:

(a) The existing or projected level of service on the arterial or at the nearest arterial intersection is at or above the minimum level of service established in Section 40.350.020.

(i) No existing or planned intersection is located within six hundred (600) feet of the proposed opening; or

(ii) The average daily trips (ADT) projected for the driveway using the proposed opening exceeds six thousand (6,000).

(b) The level of service on the arterial will significantly improve as a result of the proposed opening.

- (c) The proposed location of the opening will increase service to surrounding properties.

The study also shall address such items as capacity, signalization, channelization and storage needs of the proposed median opening or left-turn channelization and how it can service surrounding properties as well. Information used in the study shall include both current traffic counts to determine immediate need for the median opening or left-turn channelization and projected counts to determine the future need therefore (sic). Traffic projections shall be taken from existing studies where available and designated by the County Engineer; provided, that in no event shall projections be for a period longer than twenty (20) years. The cost of a median opening or left-turn channelization, approved under the above criteria, shall be borne by the developer.

Table 40.350.030-7. Driveway Spacing On Arterials/Collectors

Arterial and Collector Posted Speed (MPH)	Minimum Separation (Feet)
20	85
25	105
30	125
35	150
40	185
45 and over	230

Table 40.350.030-9. ADT Carried By Each Driveway Onto Arterials

		Maximum ADT for Each Additional Driveway	
Access from:	ADT for First Driveway	Minor Arterial	Principal Arterial
Commercial use	0 to 2,000	3,500	5,000
Office campus	0 to 2,000	3,000	5,000
Multifamily use	0 to 1,500	3,000	5,000
Industrial use	0 to 1,500	3,000	4,000

FRONTAGE IMPROVEMENTS

40.350.030 B 5. Frontage Roads Improvements.

- a. General Requirement. Unless already fully developed to the transportation standards and subject to the limitations set forth in this section and in Sections 40.350.030(B)(4) and

40.350.030(B)(15), a partial-width road shall be established and constructed to the applicable right-of-way or easement and improvement standards set out in Section 40.350.030 to that portion of a frontage public or private road which abuts a parcel being developed as a condition of development approval.

(1) The right-of-way or easement width shall be a minimum of one-half (1/2) of that specified in Tables 40.350.030-2 through 40.350.030-6; provided, that such minimum width may be increased where necessary to accommodate the minimum roadway improvement provided below to allow a minimum three (3) feet of right-of-way beyond the back of the sidewalk for urban public roads unless the sidewalk is detached from the curb with sufficient room to provide for utilities and signing, or for needed construction clearance, slopes or other features.

In the case of a development containing an arterial or fronting on an arterial street, the developer shall only be required to construct improvements up to forty-four (44) feet in width, or twenty-two (22) feet on a partial-width frontage, together with curbs and sidewalks, unless a wider section is necessary to accommodate the development.

Sufficient right-of-way and easement for a partial-width road must be provided to accommodate all necessary appurtenances required for construction including, but not limited to, approved cut or fill slopes or retaining structures if needed, If sufficient right-of-way is not available, slope easements from neighboring properties are an acceptable alternative. Such easements shall be recorded with the final plat. The county may require the proposed road cross-sections showing neighboring topography be submitted in order to determine if the partial-width road can be constructed as required.

(2) The partial width roadway shall be a minimum of twenty (20) feet wide, except for an infill B private road.

(3) New partial width roads will be allowed in commercial, office or industrial developments only after a traffic study verifies the adequacy of the roadway for clearance and turning movements.

(4) Where physical obstructions or development constraints preclude or limit full completion of the frontage road on the abutting property, the partial width roads may be allowed.

(5) Parking shall be prohibited along partial width roads, with signs and pavement markings being the responsibility of the developer.

(6) Where frontage improvements are required, the county will perform pavement deflection testing to determine the adequacy of the existing pavement. Where remaining life of the pavement is less than five (5) years, the developer shall construct the roadway to current standards to the centerline or twenty-two (22) feet, whichever is less. If remaining life is greater than five (5) years, the road shall be cut back to a location where the structure is sound and the widening constructed. However, in no case shall the reconstruction be less than four (4) feet in width from the existing edge of pavement to the new edge of pavement or face of curb. The county may require reconstruction to the centerline or twenty-two (22) feet, whichever is less, if the review authority determines the geometrics or other existing features are inadequate.

(7) The intersection of driveways with paved rural public roads shall be paved from the edge of the public road to the right-of-way or to twenty (20) feet from the edge, whichever is greater.

6. Requirements for Off-Site Intersection Improvement. The owners of a parcel being developed shall enter into a signal participation agreement to contribute a proportionate share towards the cost of a traffic signal when:

(1) An intersection impacted by the proposed development is designated by the county for installation of a traffic signal, and

(2) The parcel being developed is not located within a traffic impact fee (TIF) service area, and

(3) During the peak hour, the development generates a minimum of three (3) percent increase of traffic on the intersection approach leg impacted by the development, or five (5) trips on a minor leg (those legs of the intersection that have the smaller approach volume) or twenty (20) trips on a major leg (those legs of the intersection that have the larger approach volumes), and

(4) The peak hour level of service at the leg of the intersection impacted by the site-generated traffic is at or will fall below the minimum Level of Service standard for that intersection as defined in Section 40.350.020.